

PTO/SB/17 (01-03)

Approved for use through 04/30/2003. OMB 0651-0032

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Effective 01/01/2003. Patent fees are subject to annual revision.

☒ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$) 0.00

Complete if Known

Application Number	10/718,986
Filing Date	November 21, 2003
First Named Inventor	YU, Mang
Examiner Name	To be determined
Art Unit	1648
Attorney Docket No.	NB-00101.P.1-US

METHOD OF PAYMENT (check all that apply)☒ Check ☐ Credit card ☐ Money Order ☐ Other ☐ None☒ Deposit Account:Deposit
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501321

David R. Preston

The Commissioner is authorized to: (check all that apply)

☐ Charge fee(s) indicated below ☒ Credit any overpayments☒ Charge any additional fee(s) during the pendency of this application☐ Charge fee(s) indicated below, except for the filing fee to the above-identified deposit account.**FEE CALCULATION****1. BASIC FILING FEE**

Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description	Fee Paid
1001 750	2001 375	Utility filing fee	
1002 330	2002 165	Design filing fee	
1003 520	2003 260	Plant filing fee	
1004 750	2004 375	Reissue filing fee	
1005 160	2005 80	Provisional filing fee	
SUBTOTAL (1)			(\$) 0.00

2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE

Total Claims	Extra Claims	Fee from below	Fee Paid
Independent	-20** =	X	
Multiple Dependent	-3** =	X	

Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description
1202 18	2202 9	Claims in excess of 20
1201 84	2201 42	Independent claims in excess of 3
1203 280	2203 140	Multiple dependent claim, if not paid
1204 84	2204 42	** Reissue independent claims over original patent
1205 18	2205 9	** Reissue claims in excess of 20 and over original patent

SUBTOTAL (2) (\$) 0.00

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FEE CALCULATION (continued)**3. ADDITIONAL FEES**

Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description	Fee Paid
1051 130	2051 65	Surcharge - late filing fee or oath	
1052 50	2052 25	Surcharge - late provisional filing fee or cover sheet	
1053 130	1053 130	Non-English specification	
1812 2,520	1812 2,520	For filing a request for ex parte reexamination	
1804 920*	1804 920*	Requesting publication of SIR prior to Examiner action	
1805 1,840*	1805 1,840*	Requesting publication of SIR after Examiner action	
1251 110	2251 55	Extension for reply within first month	
1252 410	2252 205	Extension for reply within second month	
1253 930	2253 465	Extension for reply within third month	
1254 1,450	2254 725	Extension for reply within fourth month	
1255 1,970	2255 985	Extension for reply within fifth month	
1401 320	2401 160	Notice of Appeal	
1402 320	2402 160	Filing a brief in support of an appeal	
1403 280	2403 140	Request for oral hearing	
1451 1,510	1451 1,510	Petition to institute a public use proceeding	
1452 110	2452 55	Petition to revive - unavoidable	
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8021 40	8021 40	Recording each patent assignment per property (times number of properties)	
1809 750	2809 375	Filing a submission after final rejection (37 CFR 1.129(a))	
1810 750	2810 375	For each additional invention to be examined (37 CFR 1.129(b))	
1801 750	2801 375	Request for Continued Examination (RCE)	
1802 900	1802 900	Request for expedited examination of a design application	

Other fee (specify)

*Reduced by Basic Filing Fee Paid

SUBTOTAL (3) (\$) 0.00

SUBMITTED BY

Name (Print/Type)

David R. Preston

Registration No.
(Attorney/Agent)

38,710

(Complete if applicable)

Telephone 858-724-0375

Signature

Date

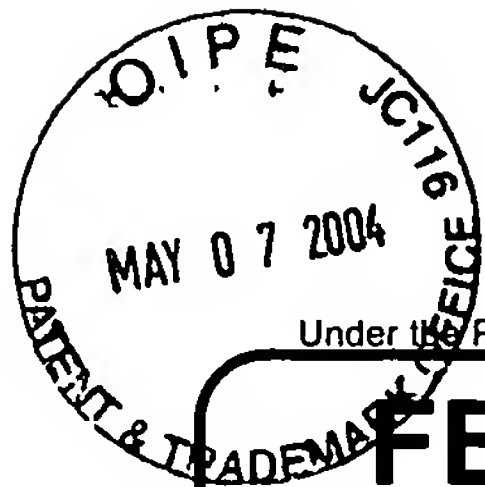
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This collection of information is required by 37 CFR 1.17 and 1.27. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231.

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Other fee (specify) _____

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SUBTOTAL (3) (\$) 0.00

SUBMITTED BY

Name (Print/Type)	David R. Preston	Registration No. (Attorney/Agent)	38,710	Telephone	858-724-0375
Signature		Date	May 4, 2004		

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TRANSMITTAL FORM (to be used for all correspondence after initial filing)	Application Number	10/718,986	
	Filing Date	November 21, 2003	
	First Named Inventor	YU, Mang	
	Art Unit	1648	
	Examiner Name	To be determined	
Total Number of Pages in This Submission	11	Attorney Docket Number	NB-00101.P.1-US

ENCLOSURES (Check all that apply)		
<input checked="" type="checkbox"/> Fee Transmittal Form	<input type="checkbox"/> Drawing(s)	<input type="checkbox"/> After Allowance communication to Technology Center (TC)
<input type="checkbox"/> Fee Attached	<input type="checkbox"/> Licensing-related Papers	<input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences
<input type="checkbox"/> Amendment/Reply	<input type="checkbox"/> Petition	<input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief)
<input type="checkbox"/> After Final	<input type="checkbox"/> Petition to Convert to a Provisional Application	<input type="checkbox"/> Proprietary Information
<input type="checkbox"/> Affidavits/declaration(s)	<input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address	<input type="checkbox"/> Status Letter
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<input type="checkbox"/> Certified Copy of Priority Document(s)	Remarks 1. Form 1449; 2. Two (2) volumes of references cited on Form 1449; 3. Postcard	
<input type="checkbox"/> Response to Missing Parts/Incomplete Application		
<input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53		

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT	
Firm or Individual name	David R. Preston Reg. No. 38,710
Signature	
Date	May 4, 2004

CERTIFICATE OF TRANSMISSION/MAILING			
I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below.			
Typed or printed name	Raymond Wagenknecht		
Signature		Date	5/4/2004

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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Application Number	10/718,986	
	Filing Date	November 21, 2003
	First Named Inventor	YU, Mang
	Art Unit	1648
	Examiner Name	To be determined
Attorney Docket Number	NB-00101.P.1-US	
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<input checked="" type="checkbox"/> Information Disclosure Statement	<input type="checkbox"/> CD, Number of CD(s) _____	
<input type="checkbox"/> Certified Copy of Priority Document(s)	Remarks	
<input type="checkbox"/> Response to Missing Parts/Incomplete Application	1. Form 1449;	
<input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	2. Two (2) volumes of references cited on Form 1449;	
	3. Postcard	

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm or Individual name	David R. Preston Reg. No. 38,710
Signature	
Date	May 4, 2004

CERTIFICATE OF TRANSMISSION/MAILING

I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below.

Typed or printed name	Raymond Wagenknecht		
Signature		Date	5/4/2004

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Patent

Docket Number: NB-00101.P.1-US

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

YU, Mang

Application No.: 10/718,986

Filed: November 21, 2003

For: BROAD SPECTRUM ANTI-VIRAL)
THERAPEUTICS AND)
PROPHYLAXIS)
_____)

Examiner: To Be Determined

Art Unit: 1648

Commissioner for Patents
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Sir:

Applicant respectfully submits this Information Disclosure Statement before the mailing of a First Office Action on the merits under 37 C.F.R. § 1.97(a)(3). Accordingly, no fee under 37 C.F.R. § 1.17(p) is deemed necessary.


Applicant submits two (2) volumes of references listed on the attached Form 1449.

Information Disclosure Statement
NB-00101.P.1-US
M. Yu

Please apply any charges not covered, or any credits, to Deposit Account number 501321 in the name of **David R. Preston & Associates**, having Customer Number 24232.

Respectfully submitted,

Date: May 4, 2004


David R. Preston
Reg. No. 38,710

David R. Preston & Associates, APC
12625 High Bluff Drive
Suite 205
San Diego, CA 92130
phone: 858.724.0375
facsimile: 858.724.0384



INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)	Docket Number: NB-00101.P.1-US	Application Number: 10/718,986
	Applicant: YU, Mang	
	Filing Date: November 11, 2003	Group Art Unit: 1648

U.S. PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE IF APPROPRIATE
	P1	3,439,089	04/1969	Cherkas			
	P2						

FOREIGN PATENT DOCUMENTS								
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	Translation	
							YES	NO
	F1							

Examiner Signature		Date Considered	
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OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)		
EXAMINER INITIALS		CITATION
	D1	Achyuthan, KE and Achyuthan AM. 2001. Comparative enzymology, biochemistry and pathophysiology of human exo-a-sialidases (neuraminidases). Comparative Biochem & Physiol part B 129:29-64
	D2	Air, GM and Laver, WG. 1995. Red cells bound to influenza virus N9 neuraminidase are not released by the N9 neuraminidase activity. Virology 211:278-284
	D3	Auerswald EA, Horlein D, Reinhardt G, Schroder W and Schnabel E. 1988. Expression, isolation and characterization of recombinant [Arg15, Glu52] Aprotinin. Biol Chem Hoppe-Seyler Vol 369, Suppl., pp27-35
	D4	Barbey-Morel CL, Oeltmann TN, Edwards KM and Wright PF. 1987. Role of respiratory tract proteases in infectivity of influenza A virus. J Infect Dis 155:667-672
	D5	Bessette PH, Aslund F, Beckwith J and Georgiou G. 1999. Efficient folding of proteins with multiple disulfide bonds in the Escherichia coli cytoplasm. Pro Natl Acad Sci USA 96:13703-13708
	D6	Callan RJ, Hartmann FA, West SE and Hinshaw VS. 1997. Cleavage of influenza A virus H1 hemagglutinin by swine respiratory bacterial proteases. J Virol 71:7579-7585
	D7	Connor, RJ, Kawaoka, Y, Webster, RG and Paulson JC. 1994. Receptor specificity in human, avian, and equine H2 and H3 influenza virus isolates. Virology 205:17-23
	D8	Copley, RR, Russell, RB and Ponting, CP. 2001. Sialidase-like Asp-boxes: sequence-similar structures within different protein folds. Prot Sci 10:285-292
	D9	Corfield, AP, Veh, RW, Wember, M, Michalski, JC and Schauer, R. 1981. The release of N-acetyl- and N-glycolloyl-neuraminic acid from soluble complex carbohydrates and erythrocytes by bacterial, viral and mammalian sialidases. Bichem J 197:293-299

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EXAMINER INITIALS		CITATION
	D10	Drzeniek, R. Substrate specificity of neuraminidases. 1973. Histochem J 5:271-290
	D11	Endo Y, Carroll KN, Ikizler MR and Wright PF. 1996. Growth of influenza virus in primary, differentiated epithelial cells derived from adenoids. J Virol 70:2055-2058
	D12	Fritz H and Wunderer G. 1983. Biochemistry and applications of aprotinin, the kallikrein inhibitor from bovine organs. Arzneim-Forsch 33:479-494
	D13	Fukudome, K., Yoshie, O. and Konno, T. 1989. Comparison of human, simian, and bovine rotaviruses for requirement of sialic acid in hemagglutination and cell adsorption. Virology 172:196-205
	D14	Garten W, Bosch FX, Linder D, Rott R and Klenk HD. 1981. Proteolytic activation of the influenza virus hemagglutinin: the structure of the cleavage site and the enzymes involved in cleavage. Virology 115:361-374
	D15	Goger, B, Halden, Y, Rek, A, Mosl, R, Pye, D, Gallagher, J and Kungl, AJ. 2002. Different affinities of glycosaminoglycan oligosaccharides for monomeric and dimeric interleukin-8: a model for chemokine regulation at inflammatory sites. Bichem 41:1640-1646
	D16	Gotoh B, Ogasawara T, Toyoda T, Inocencio N, Hamaguchi M and Nagai Y. 1990. An endoprotease homologous to the blood clotting factor X as a determinant of viral tropism in chick embryo. EMBO J 9:4189-4195
	D17	Gust, ID, Hampson, AW. and Lavanchy, D. 2001. Planning for the next pandemic. Rev Med Virol 11:59-70
	D18	Hayden, FG. 1996. Amantadine and rimantadine-mechanisms. In Antiviral drug resistance (ed. D. D. Richman), pp. 59-77. Chichester, UK: John Wiley & Sons Ltd

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EXAMINER INITIALS		CITATION
	D19	Hosoya M, Matsuyama S, Baba M, Susuki H and Shigeta S. 1992. Effects of protease inhibitors on replication of various myxoviruses. Antimicrobial Agents and Chemotherapy 36:1432-1436
	D20	Ito, T. 2000. Interspecies transmission and receptor recognition of influenza a virus. Microbiol Immunol 44(6):423-430
	D21	Janakiraman, MN, White, CL, Laver, WG, Air, GM and Luo, M. 1994. Structure of influenza virus neuraminidase B/lee/40 complexed with sialic acid and a dehydro analog at 1.8-A resolution: implications for the catalytic mechanism. Biochemistry 33:8172-8179
	D22	Kido, H, Niwa, Y, Beppu, Y and Towatari, T. 1996. Cellular proteases involved in the pathogenicity of enveloped animal viruses, human immunodeficiency virus, influenza virus A and sendai virus. Advan Enzyme Regul 36:325-347
	D23	Klenk, HD and Rott, R. 1988. The molecular biology of influenza virus pathogenicity. Adv Vir Res 34:247-281
	D24	Klenk, HD and Garten W. 1994. Host cell proteases controlling virus pathogenicity. Trend Micro 2:39-43
	D25	Kreisel, W, Volk, BA, Buchsel, R. and Reutter, W. 1980. Different half-lives of the carbohydrate and protein moieties of a 110,000-dalton glycoproteins isolated from plasma membranes of rat liver. Proc Natl Acad Sci USA 77:1828-1831
	D26	Krunkosky TM, Fischer BM, Martin LD, Jones N, Akley NJ and Adler KB. 2000. Effects of TNF-b on expression of ICAM-1 in human airway epithelial cells in vitro. Am J Respir Cell Mol Biol 22:685-692
	D27	Lazarowitz SG, Goldberg AR and Choppin PW. 1973. Proteolytic cleavage by plasmin of the HA polypeptide of influenza virus: host cell activation of serum plasminogen. Virology 56:172-180

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	D28	Lee, MK and Lander, AD. 1991. Analysis of affinity and structural selectivity in the binding of proteins to glycosaminoglycans: development of a sensitive electrophoretic approach. Pro Natl Acad Sci USA 88:2768-2772
	D29	Meltzer, MI, Cox, NJ and Fukuda, K. 1999. The economic impact of pandemic influenza in the United States: priorities for intervention. Emerg Infect Dis 5:659-671
	D30	Meyer, FA, King, M and Gelman, RA., 1975. On the role of sialic acid in the rheological properties of mucus. Biochimica et Biophysica Acta 392: 223-232
	D31	Milner, CM, Smith, SV, Carrillo MB, Taylor, GL, Hollinshead, M and Campbell, RD. 1997. Identification of a sialidase encoded in the human major histocompatibility complex. J Bio Chem 272:4549-4558
	D32	Monti, E, Preti, A, Venerando, B and Borsani, G. 2002. Recent development in mammalian sialidase molecular biology. Neurochem Res 27:646-663
	D33	Monti, E, Preti, A, Nesti, C, Ballabio, A and Borsani G. 1999. Expression of a novel human sialidase encoded by the NEU2 gene. Glycobiol 9:1313-1321
	D34	Monti, E, Bassi, MT, Papini, N, Riboni, M, Manzoni, M, Veneranodo, B, Croci, G, Preti, A, Ballabio, A, Tettamanti, G and Borsani, G. 2000. Identification and expression of NEU3, a novel human sialidase associated to the plasma membrane. Bichem J 349:343-351
	D35	Murakami M, Towatari T, Ohuchi M, Shiota M, Akao M, Okumura Y, Parry MA and Kido H. 2001. Mini-plasmin found in the epithelial cells of bronchioles triggers infection by broad-spectrum influenza A viruses and Sendai virus. Eur J Biochem 268: 2847-2855
	D36	Nakayama, K. 1997. Furin: a mammalian subtilisin/kex2p-like endoprotease involved in process of a wide variety of precursor proteins. Biochem 327:625-635

Examiner Signature		Date Considered	
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OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)		
EXAMINER INITIALS		CITATION
	D37	Ovcharenko AV and Zhirnov OP. 1994. Aprotinin aerosol treatment of influenza and paramyxovirus bronchopneumonia of mice. Antiviral Res 23:107-118
	D38	Pshezhetsky, A, Richard, C, Michaud, L, Igdoura, S, Wang, S, Elsliger, M, Qu, J, Leclerc, D, Gravel, R, Dallaire, L and Potier, M. 1997. Cloning, expression and chromosomal mapping of human lysosomal sialidase and characterization of mutations in sialidosis. Nature Genet 15: 316-320
	D39	Ramphal, R. and Pyle, M. 1983. Evidence for mucins and sialic acid as receptors for Pseudomonas aeruginosa in the lower respiratory tract. Infect Immun 41:339-44
	D40	Roggentin, P, Kleineidam, RG and Schauer, R. 1995. Diversity in the properties of two sialidase isoenzymes produced by Clostridium perfringens spp. Biol Chem Hoppe-Seyler 376:569-575
	D41	Roggentin, P, Schauer, R, Hoyer, LL and Vimr, ER. 1993. The sialidase superfamily and its spread by horizontal gene transfer. Mol Microb 9:915-921
	D42	Rosenberg A. ed. Biology of the Sialic Acids. 1995. pp270-273
	D43	Sakurada, K, Ohta, T and Hasegawa, M. 1992. Cloning, expression and characterization of the Micromonospora viridifaciens neuraminidase gene in Streptomyces lividans. J Bacteriol 174: 6896-6903
	D44	Schauer, S. ed., pp233. Sialic Acids Chemistry, Metabolism and Function. Springer-Verlag, 1982
	D45	Schauer, R. 1982. Chemistry, metabolism, and biological functions of sialic acids. Adv. Carbohydrate Chem & Biochem 40:131-235
	D46	Schauer, R. 1982. Chemistry, metabolism, and biological functions of sialic acids. Adv. Carbohydrate Chem & Biochem 40:131-235

Examiner Signature		Date Considered	
-----------------------	--	--------------------	--

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)		
EXAMINER INITIALS		CITATION
	D47	Scheiblaue H, Reinacher M, Tashiro M and Rott R. 1992. Interactions between bacteria and influenza A virus in the development of influenza pneumonia. J Infec Dis 166:783-791
	D48	Sinn PL, Williams G, Vongpunsawad S, Cattaneo R and McCray PB. 2002. Measles virus preferentially transduces the basolateral surface of well-differentiated human airway epithelia. J Virol 76:2403-2409
	D49	Skehel, JJ and Wiley, DC. 2000. Receptor binding and membrane fusion in virus entry: the influenza hemagglutinin. Annu Rev Biochem 69:531-569
	D50	Tashiro M, Klenk HD and Rott R. 1987. Inhibitory effect of a protease inhibitor, leupeptin, on the development of influenza pneumonia, mediated by concomitant bacteria. J Gen Virol 68:2039-2043
	D51	Tashiro M, Ciborowski P, Reinacher M, Pulverer G, Klenk HD and Rott R. 1987. Synergistic role of staphylococcal proteases in the induction of influenza virus pathogenicity. Virology 157:421-430
	D52	Tobita, K, Sugiura, A, Enomoto, C and Furuyama, M. 1975. Plaque assay and primary isolation of influenza A viruses in an established line of canine kidney cells (MDCK) in the presence of trypsin. Med Microbiol Immunol 162:9-14
	D53	Venturi M, Seifert C and Hunte C. 2001. High level production of functional antibody Fab fragments in an oxidizing bacterial cytoplasm. J Mol Biol 315:1-8
	D54	Vimr, DR. 1994. Microbial sialidases: does bigger always mean better? Trends Microbiol 2: 271-277
	D55	Vlasak, R., Luytjes, W., Spaan, W. and Palese, P. 1988. Human and bovine coronaviruses recognize sialic acid-containing receptors similar to those of influenza C viruses. Proc Natl Acad Sci USA 85:4526-4529

Examiner Signature		Date Considered	
-----------------------	--	--------------------	--

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)		
EXAMINER INITIALS		CITATION
	D56	Wada, T, Yoshikawa, Y, Tokuyama, S, Kuwabara, M, Akita, H and Miyagi, T. 1999. Cloning, expression, and chromosomal mapping of a human ganglioside sialidase. Biochem Biophys Res Commun 261:21-27
	D57	Wang, FZ, Akula, SM, Pramod, NP, Zeng, L and Chandran, B. 2001. Human herpesvirus 8 envelope glycoproteins K8.1A interaction with the target cells involves heparan sulfate. J Virol 75:7517-27
	D58	Wassilewa, L. 1977. Cell receptor for paramyxoviruses. Arch Virol 54:299-305
	D59	Witt, DP and Lander AD. 1994. Differential binding of chemokines to glycosaminoglycan subpopulations. Curr Bio 4:394-400
	D60	Wood, J. 2001. Developing vaccines against pandemic influenza. Phil Trans R Soc Lond B 356:1953-1960
	D61	Xiang Y and Moss B. 2003. Molluscum contagiosum virus interleukin-18 (IL-18) binding protein is secreted as a full-length form that bind cell surface glycosaminoglycans through the C-terminal tail and a furin-cleaved form with only the IL-18 binding domain. J Virol 77:2623-2630
	D62	Zambon, M. 2001. The pathogenesis of influenza in humans. Rev Med Virol 11:227-241
	D63	Zhang L, Peeples ME, Boucher RC, Collins PL and Pickles RJ. 2002. Respiratory syncytial virus infection of human airway epithelial cells is polarized, specific to ciliated cells, and without obvious cytopathology. J Virol 76:5654- 5666
	D64	Zhirnov OP, Ovchartenko AV and Bukrinskaya AG. 1982. Protective effect of protease inhibitors in influenza virus infected animals. Arch Virol 73:263-272
	D65	Zhirnov OP, Ovcharenko AV and Bukrinskaya AG. 1982. A modified plaque assay method for accurate analysis of infectivity of influenza viruses with uncleaved hemagglutinin. Arch Virol 71:177-183

Examiner Signature		Date Considered	
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OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)		
EXAMINER INITIALS		CITATION
	D66	Zhirnov OP, Ovcharenko AV and Bukrinskaya AG. 1984. Suppression of influenza virus replication in infected mice by protease inhibitors. J Gen Virol 65:191-196
	D67	Zhirnov OP, Ovcharenko AV and Bukrinskaya AG. 1985. Myxovirus replication in chicken embryos can be suppressed by aprotinin due to the blockage of viral glycoprotein cleavage. J Gen Virol 66:1633-1638
	D68	Zhirnov OP. 1987. High protection of animals lethally infected with influenza virus by aprotinin-rimantadine combination. J Med Virol 21:161-167
	D69	Zhirnov OP, Ikizler MR and Wright PF. 2002. Cleavage of influenza A virus hemagglutinin in human respiratory epithelium is cell associated and sensitive to exogenous antiproteases. J Virol 76:8682-8689
	D70	Tringali C, Papini N, Fusi P, Croci G, Borsani G, Preti A, Tortora P, Tettamanti G, Venerando B, Monti E. Properties of recombinant human cytosolic sialidase HsNEU2. The enzyme hydrolyzes monomerically dispersed GM1 ganglioside molecules. J Biol Chem. 2004 Jan 30;279(5):3169-79
	D71	Monti E, Bassi MT, Bresciani R, Civini S, Croci GL, Papini N, Riboni M, Zanchetti G, Ballabio A, Preti A, Tettamanti G, Venerando B, Borsani G. Molecular cloning and characterization of NEU4, the fourth member of the human sialidase gene family. Genomics. 2004 Mar;83(3):445-53
	D72	Comelli EM, Amado M, Lustig SR, Paulson JC. Identification and expression of Neu4, a novel murine sialidase Gene. 2003 Dec 4;321:155-61
	D73	

Examiner Signature		Date Considered	
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